

MOSAICTM 64K SELECT NEWSLETTER

PREMIER ISSUE

SEPT. 1983

From the Editors Desk

Well here it is, the first Select Club newsletter. The 64K Select board adds a totally new avenue to your Atari by allowing you to have much more memory in your machine than normally would be possible. With the addition of bank select memory, a whole new avenue of applications for your Atari computer has been made available.

The 64K RAM Select is much more capable than just adding some more memory for BASIC or Word Processing. The Select Club is for you, 64k RAM Select owners. As the Select Club grows, you will see these pages give applications, product reviews, and other information allowing you to take full advantage of your 64k RAM Select Board.

In the future we hope to allow special club purchases of Mosaic and other compatible products at special discounts exclusively for club members. More about this when we can get some good deals lined up. In addition to commercial products, we are in the process of beginning a software library for public domain programs. If you have written a program and would like to share it with others, please send it in.

In the following months, we will be adding more application programs and also a question and answer column. So send in your questions or problems and we will try to find answers to them.

Be Recognized

Become one of the select few to be forever immortalized by having your name in print! Write articles for the Select Club newsletter. We want to hear from you. We pay \$50.00 per page for every article or program printed. We are especially interested in new applications for the 64k Select board, but would also like tutorials, hardware and software product reviews, or any other articles that would be of benefit to Atari owners as a whole. Send your articles or programs to: The Editor, The Select Club Newsletter, C/O Mosaic Electronics, P.O. Box 708, Oregon City, OR 97045.

Mosaic Adaptor

Now that the Atari 800 is coming with 48k of memory standard, you have to ask, "What am I going to do with those extra memory boards I have left over after I put in my 64k RAM Select?" The answer is, the Mosaic Adaptor! The Mosaic Adaptor comes with no memory, but has 16 open slots to receive the 16 memory chips off two Atari 16k memory boards, making the Mosaic Adaptor a 32k RAM memory board. The 8 chips across the top of the Atari 16k board easily unplug and they plug into the open slots on the Mosaic Adaptor without any soldering. When the Mosaic Adaptor is upgraded to 32k, it is identical to the standard Mosaic 32k RAM board. By combining two memory boards into one, you free up a memory slot, making it available for adding a peripheral board or for another 16k memory board to give you a total of 112k. The Adaptor is available from your local Mosaic memory dealer for \$59.95. If you cannot obtain one from your dealer, you may order directly from Mosaic Electronics, P.O. Box 708, Oregon City, OR 97045. 1-800-547-2807 in Oregon (503) 653-7885.

Late Breaking News

Attention Select Owners, the SuperDrive software package is finally here!

SuperDrive allows you to configure your bank select memory as a second, third, or fourth disk drive. It works with all allowable memory configurations to give you up to 720 sectors of high speed file storage. All standard DOS commands are supported including mem save files.

SuperDrive is most ideal for storage of data that normally requires frequent editing or access. Saves and loads are preformed 20 to 30 times faster than with a standard disk drive. Suggested retail is \$29.95 plus \$3.00 for shipping.

Visa or Mastercard orders may be placed by calling 1-800-547-2807. Or send a check to:

Select Members Club
C/O Mosaic Electronics, Inc.
P.O. Box 708
Oregon City, OR 97045

The Handyman, with Slow Lister

Normally, whenever you want to access standard DOS functions in Atari Basic, you have to leave basic and go into DOS to do it. Every time you want to use DOS, you have to do a "MEMSAVE" or your program goes away when the second half of DOS loads in. With "The Handyman", from Holiday Software, this is no longer a problem. The Handyman is a powerful upgrade to Atari BASIC, which makes it possible to use many standard DOS features while still being in BASIC.

The Handyman program operates by intercepting the input from the keyboard and then before passing the information on to BASIC, checks to see if you are requesting a special function. The Handyman has twelve different functions available which may be used from BASIC, without switching back to DOS.

The handiest function is the DIR command which will allow you to look at the directory of your disk without having to go back to DOS. LOCK and UNLOCK allow you to change the file attributes on the disk while still in BASIC. RENAME can change any filename to another, and DELETE will enable you to kill the file altogether. If you found yourself out of disk space, you now can format a blank disk using the FORMAT command while still retaining your basic program. The PUSH function allows you to write blocks of memory to the disk such as screen displays. ECHO will echo everything displayed on the screen to your printer. BLOAD allows binary loads, and CONVERT, will convert numbers between hex and decimal.

Another very nice feature of the Handyman, is that all of the functions can be used in a BASIC program by calling the routines with the BASIC user function. In addition, the Handyman functions may also be used with the Atari Assembler.

The Slow Lister function of the Handyman allows you to page through and edit a BASIC program listing. You may change the page size defaults and the starting line number.

The Handyman resides in the 4k bank above BASIC, and therefore requires that you have a Mosaic 64k Select board installed in your computer.

"The Handyman with Slow Lister", supplied on standard 5.25" Atari diskette, and the accompanying manual, are available for \$29.95 plus \$3.00 for shipping and handling. In addition, purchasers of The Handyman, may subscribe to "The Select" newsletter for a special discount price of \$5.00. Mosaic Electronics, P.O. Box 708, Oregon City, OR 97045, 1-800-547-2807, in Oregon: (503) 653-7885.

A Solid State Cassette Emulator

by Ralph Walden

The following program will allow you to access your bank memory as if it is a high speed cassette file, only using B: instead of C:. For example, in BASIC, you would use SAVE "B:" to save a file, and LOAD "B:" to load the file. Using this driver, an 8k file can be saved in 9 seconds. There are, however, some things to keep in mind when using this program. First, any filename included will be ignored. Only one file may be stored in the B: drive. Writing another file will erase the previous file. Second, because it is unknown how many banks will be available no check is made to see if the bank exists. The program starts saving data at bank #1 (65473), and continues saving all data even if the bank doesn't exist. Reading a file that runs out of bank memory, will result in garbage data as soon as it runs out of banks. Third, pressing system reset will erase the handler to this drive. The data is not lost, you just need to reinitialize the handler. From basic, you can do this with X=USR(1586). From a Debugger that expects an RTS, (OS/A'S BUG/65 or Atari's Cartridge Debugger) run it at HEX 633.

To run the program after assembling it to an object file, you need to load the program, and then treat it as if you had pressed system reset. (See above paragraph). From BASIC, this would be X=USR(1586). From the Atari Assembler, type BUG, return, G633, return.

Special Notes:

You can change which bank the program starts saving from by changing line 30 to any bank except zero.

Page 6 is not a totally safe place, so you may wish to assemble the program elsewhere. It will crash your system if you assemble it above \$C000, since it switches banks. Also, lines 200 and 220 will need to be changed to reflect the new DRIVE vectors (Line 900).

Those of you with OS/A+ can convert the object code to a COM file by changing line 70 to *=\$62F, and adding line 75 JMP COM. Save the object code as filename.CON. You can then load and initialize the drive by typing the filename from DOS.

Line 790 can be deleted and the label moved to line 800 if you are never going to have the screen located above \$C000. Loads and Saves will go a little faster if you do. The purpose of this line is to time the bank switching to when the television beam is off the screen. Otherwise, you will get a garbled screen.

A Solid State Cassette Emulator

010	ICAUX1	=	\$034A	
020	EOF	=	\$88	
030	FIRSTBANK	=	1	
040	HATABS	=	\$031A	
050	WSYNC	=	\$D40A	
060	BANKØ	=	65472	
070		*=	\$0632	
080	BASIC	PLA		
090	COM	LDX	#15	
100	FIND	LDA	HATABS,X	
110		BEQ	FOUND	:First open place
120		CMP	#66	; "B" already exists?
130		BEQ	FOUND	
140		INX		
150		INX		
160		INX		
170		BNE	FIND	
180	FOUND	LDA	#66	
190		STA	HATABS,X	
200		LDA	#\$F3	
210		STA	HATABS + 1,X	
220		LDA	#6	
230		STA	HATABS + 2,X	
240		RTS		
250	OPEN	LDA	#0	
260		STA	PLACE	
270		LDA	#\$C0	
280		STA	PLACE + 1	
290		LDA	#FIRSTBANK	
300		STA	BANK -	
310		BNE	RETURN	
320	CLOSE	LDA	ICAUX1,X	
330		AND	#8	:Was it opened for input?
340		BEQ	RETURN	:Yes, then return
350		LDA	PLACE	
360		STA	STOP	
370		LDA	PLACE + 1	
380		STA	STOP + 1	
390		LDA	BANK	
400		STA	STOP + 2	
410	RETURN	LDY	#1	
420	END	RTS		
430	PUT	JSR	WHICHBANK	
440		STA	BANKØ,X	
450		STA	(\$E0),Y	
460		STA	BANKØ	
470		JMP	INCPLACE	
480	GET	JSR	STATUS	:Any more bytes?
490		BCS	END	:no, then error
500		JSR	WHICHBANK	
510		STA	BANKØ,X	
520		LDA	(\$E0),Y	
530		STA	BANKØ	
540	INCPLACE	LDX	\$E2	
550		INC	PLACE	
560		BNE	RETURN	
570		INC	PLACE + 1	
580		LDY	#\$D0	
590		CPY	PLACE + 1	
600		BNE	RETURN	
610		LDY	#\$C0	
620		STY	PLACE + 1	
630		INC	BANK	
640		BNE	RETURN	
650	STATUS	LDA	BANK	
660		CMP	STOP + 2	
670		BNE	OKAY	
680		LDA	PLACE	
690		CMP	STOP	
700		BNE	OKAY	
710		LDA	PLACE + 1	
720		CMP	STOP + 1	
730		BNE	OKAY	
740		LDY	#EOF	
750		SEC		
760		BCS	END	
770	OKAY	CLC		:Flag for get
780		BCC	RETURN	
790	WHICHBANK	STA	WSYNC	:Flag for get
800		STX	\$E2	:Put in sync
810		LDX	PLACE	:So if screen in bank #0,
820		STX	\$E0	:Screen won't be disturbed
830		LDX	PLACE + 1	
840		STX	\$E1	
850		LDX	BANK	
860		LDY	#0	
870		RTS		
880	STOP	.BYTE	0,0,0	
890	PLACE	.WORD	0	
900	DRIVE	.WORD	OPEN - 1,CLOSE - 1,GET - 1	
910		.WORD	PUT - 1,STATUS - 1,END - 1	
920	BANK	.BYTE	0	

BASIC LOADER

```
10 PRINT "Solid State Cassette Emulator"
20 PRINT "Loading Patch..."
30 FOR A=1586 TO 1791
40 READ D
50 POKE A,D
60 NEXT A
70 X=USR(1586)
80 PRINT "Patch loaded"
90 END
100 DATA 104,162,15,189,26,3,240,9
110 DATA 201,66,240,5,232,232,232
120 DATA 208,242,169,66,157,26,3,169
130 DATA 243,157,27,3,169,6,157,28,3
140 DATA 96,169,0,141,241,6,169,192
150 DATA 141,242,6,169,1,141,255,6
160 DATA 208,25,189,74,3,41,8,240,18
170 DATA 173,241,6,141,238,6,173,242
180 DATA 6,141,239,6,173,255,6,141
190 DATA 240,6,160,1,96,32,217,6,157
200 DATA 192,255,145,224,141,192,255
210 DATA 76,158,6,32,185,6,176,236
220 DATA 32,217,6,157,192,255,177
230 DATA 224,141,192,255,166,226,238
240 DATA 241,6,208,216,238,242,6,160
250 DATA 208,204,242,6,208,206,160
260 DATA 192,140,242,6,238,255,6,208
270 DATA 196,173,255,6,205,240,6,208
280 DATA 21,173,241,6,205,238,6,208
290 DATA 13,173,242,6,205,239,6,208
300 DATA 5,160,136,56,176,169,24,144
310 DATA 164,141,10,212,134,226,174
320 DATA 241,6,134,224,174,242,6,134
330 DATA 225,174,255,6,160,0,96,0,0
340 DATA 0,0,0,82,6,99,6,141,6,127,6
350 DATA 184,6,126,6,0
```

 **MOSAIC**
ELECTRONICS

P.O. Box 708
Oregon City, Oregon 97045
(503) 653-7885

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APPLICATION FOR SELECT CLUB MEMBERSHIP

I want membership in the Select Members Club. I warrant that I am an owner of the Mosaic 64K Select, and that I am sending or have sent my warranty card. I understand that I will receive 12 issues of the monthly newsletter for one full year, and that I will have access to the complete library of software as it develops.

I want the Handyman package from Holiday Software.

Enclosed is \$30.00 for Handyman.

\$5.00 for discount membership.

Just accept me as a member.

Enclosed is \$15.00 for membership.

Enclosed please find my money order for \$ _____ to Mosaic Electronics, Inc.

Charge \$ _____ to my:

VISA # _____ Expires: _____
 Mastercard # _____ Expires: _____

I own Atari 400, Atari 800 with the following memory boards:

Signature: _____

Please print or type:

Name: _____

Address: _____

Phone: _____

Mail to: Select Members Club, Mosaic Electronics, Inc.
P.O. Box 708, Oregon City, OR 97045

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